









Sequence #1: Collaborative Ethnographic Research and Design	
Intent: Identify opportunities to improve existing MEDRAD tools or develop new tools	Trigger: Business Development (Question: <i>Within a business unit?</i>) identifies a research topic (AW-U5)
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	Leader is chosen for the project (AW-U5)
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	Leader selects 5-6 people from innovations to form the project team (AW-U5, AW-U1)
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Intent: Evaluate current MEDRAD tool, identify opportunities for improvement or new products	Team travels to customer site to observe tool usage in context (D-U1, AW-U1, AW-U2)
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	Trigger: Start observation session
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Intent: Record session to refer to later (help remember), be able to <i>discuss with the group</i> (Inference based on AW-U1)	Take notes on pad of paper to capture quotes, which equipment was used, etc. (D-U1)
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	Capture observation session on digital video (AW-U1, D-U1)
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	Trigger: Observe a problem the customer has with the tool, or problems in customers process (D-U1, AW-U1)
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Intent: Identify opportunities to improve existing tool or to build new tools	Think about possible solutions to the problem during observation session (D-U1)
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	Trigger: End observation session
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	Go to hotel room (D-U1)
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Intent: Write notes in "clean" format anyone can read (not hand written), facilitate sharing notes with others	Write notes in electronic format (D-U1) ⚡ Duplication of documentation effort; first on paper then digital
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	Send digital version of notes to one project team member (D-U1)
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Intent: Create a single record of the observation session with entire team's data	All notes are aggregated to create a single notes document for this observation session (D-U1) ⚡ Inferred: difficulty in sorting through notes to find duplicate information
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	Trigger: Project team travels back to MEDRAD
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Intent: Develop the best solution possible through group collaboration	Project lead schedules group brainstorming meeting (AW-U5)
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	Team members meet in a conference room (Interview-U8)
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Intent: Develop as many potential solutions as possible for observed problems	Team members brainstorm ideas individually (AW-U5, Interview-U8)
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Intent: Capture the original idea and track the inventor for each idea (for listing on a potential patent)	Each idea is recorded on an Idea Capture Form (ICF) (AW-U1, AW-U2, AW-U5, D-U1) ⚡ Should be captured in lab notebook too, but that would be duplicated effort and usually does not happen ⚡ Idea is not witnessed – there is a space on the ICF form but it is not filled out (Consolidated Artifact Model)
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	Go around the room and present each person's idea(s)
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Intent: Build on work of others but maintain record of who invented what	Build on idea of someone else by creating a new ICF form (Interview-U8, AW-U6)
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	Project lead gathers all ICF forms created during the meeting (AW-U5)
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	Trigger: End of brainstorming meeting
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Intent: Since paper forms can be lost or misplaced, a digital copy is created	Project lead scans or captures digital picture of each ICF form (AW-U5) ⚡ Does not always happen?
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Intent: Store digital ICF in a location that is regularly backed up	Project lead uploads digital ICF forms to active project (AW-U5)
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Intent: Assess value of ideas in relation to obtaining new patents/expanding existing patents	Project lead meets with patent attorney to go through ICFs created in group meeting ⚡ May not go through Invention Disclosure Website first (AW-U5, Interview-U8) – if a consistent process is not followed it lessens credibility of the story (Interview-U8)
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Intent: Find out if there is an idea to patent	Project lead and attorney identify ideas that are worth pursuing (AW-U5, Interview-U8)

	
Intent: Flush out the each potential solution for the provisional patent	Trigger: Project lead meets with each inventor who has a potentially patentable idea (AW-U5, Interview-U8)
	
	Project lead and inventor develop a text description of the idea and a line art drawing (AW-U5, Interview-U8)
	
Intent: Create a format that the USPTO will accept for a provisional patent	Project lead compiles all of the documents/line art drawings for the attorney (AW-U5)
	
	Trigger: Project lead sends the compiled description/drawing document to the attorney (AW-U5, Interview-U8)
	
	Attorney files a provisional patent application (AW-U5, Interview-U9)

Sequence #2: Individual Research and Design	
	Trigger: Received email from innovations colleague regarding another project (D-U1)
	
	Inspires research scientist to search for information relevant to his current project (D-U1)
	
Intent: Gather existing information relevant to inventor's current project	Used internet search engine to look for articles or papers related to current project
	
	[to be completed]